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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/811,100  | 03/26/2004  | Attila Bilgic        | LLP116US            | 9729             |
| 29393   | 7590        | 11/16/2007           | EXAMINER            |                  |
| ESCHWEILER & ASSOCIATES, LLC<br>NATIONAL CITY BANK BUILDING<br>629 EUCLID AVE., SUITE 1000<br>CLEVELAND, OH 44114 |             |                      | VO, DON NGUYEN      |                  |
|   |             | ART UNIT             |                     | PAPER NUMBER     |
|   |             | 2611                 |                     |                  |
|   |             | NOTIFICATION DATE    |                     | DELIVERY MODE    |
|   |             | 11/16/2007           |                     | ELECTRONIC       |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Docketing@eschweilerlaw.com

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 10/811,100             | BILGIC ET AL.       |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | DON N. VO              | 2611                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 27 August 2007.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1,2,6-14,16 and 17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) 1,2 and 9-14 is/are allowed.
- 6) Claim(s) 6-8,16 and 17 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 27 August 2007 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Acknowledgment***

1. This Office Action is responsive to the Amendment filed on 8/27/2007.

Accordingly, claims 1, 2, 6-14, 16 and 17 are pending in this application.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 6-8, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sih et al (US 2002/0123316; art of record) in view of Hasegawa (US 6,571,088; art of record).

Regarding claims 6-8, 16 and 17, Sih, as shown in figure 2, teaches a method and apparatus for correcting frequency in a receiver comprising a first control system (when the switch is at position A, "Mode A", including all of the elements associated with the loop) to correct the frequency discrepancy applied to the mixer stage (204) and a second control system (when the switch is at position B, "Mode B", including all of the elements associated with the loop) to correct the frequency discrepancy in digital in accordance with the algorithm from the digital rotator. See also paragraphs [0031] – [0052].

Sih fails to teach a PLL connected to the output of the VCO (206) in which the output of the PLL is supplied to the mixer stage (204).

However, Hasegawa, from the same field of endeavor and as shown in figures 1, 4 and 5, teaches the PLL (7) connected to the output of the VCO (8) in which the output of the PLL is supplied to the mixer stage (3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Sih et al by incorporating the PLL at the output of the VCO (206) as taught by Hasegawa so that a more stable and accurate frequency can be generated by the PLL (as well known in the art for the function of the PLL) and provided to the mixer stage.

Such modification will reduce the frequency discrepancy between the received signal and the locally generated clock for demodulating the received signal.

***Allowable Subject Matter***

5. Claims 1, 2 and 9-14 are allowed over prior art of record.

***Response to Arguments***

6. Applicant's arguments with respect to claims 6-8, 16 and 17 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DON N. VO whose telephone number is (571) 272-3018. The examiner can normally be reached on Mon-Fri (9:00AM - 6:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MOHAMMAD GHAYOUR can be reached on (571) 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



DON N. VO  
Primary Examiner  
Art Unit 2611